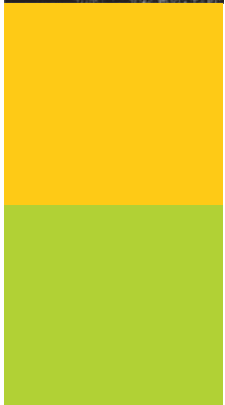


The Call for Innovative Ideas under Interreg project “DANOVA: Innovative transportation services for blind and partially sighted passengers in the Danube Region” was an opportunity for innovators, practitioners, conceptual thinkers, entrepreneurs, creative individuals from all backgrounds, start-ups, research organizations and businesses working on innovative and accessible transportation solutions to apply with their idea for addressing the issue of safe and independent mobility for blind and partially sighted passengers.

International Expert Jury evaluated more than 20 submitted solutions that can make transportation facilities more accessible to blind and partially sighted persons.



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DANOVA

3 Innovative Ideas selected through Transnational Open Innovation Call for Ideas

Danube Transnational Programme

 <http://www.interreg-danube.eu/approved-projects/danova>

 www.facebook.com/Interreg-DANOVA-100215245178279/

 <https://www.instagram.com/interregdanova/>



IDEA NO. 1

GUIDE ME

Technical description:

It is a video assistance system for all travellers, as well as people with disabilities and emergency services.

Passengers can request help from a control centre or family member at the touch of a button using a smartphone.

- "Live" camera image
- Audio and data connections
- GPS and real-time location
- Available for use as Web-App, iOS and Android-App
- Profile setting for direct connection with a sign language interpreter

Benefits:

- Universal applicability
- Any customer application integration
- No need to retrofit special infrastructure

Cost:

A professional Guide-Me license costs €7.5 per hour
- Guide-Me is usually free for end customers!

Contact:

DI FH Mst Werner Bischof
werner.bischof@guide-me.at

IDEA NO. 2

DANOVAApp

Technical description:

It is an all-inclusive-solution, bringing together both navigation and accessibility information in one single app for blind and partially sighted travellers. The location can either be entered manually (search function to search for stations) or determined automatically via the GPS data.

DANOVAApp will provide the following information:

- A general overview of each station (Information about the built environment: type of building / floors / facilities of railway or metro stations and seaports; location of tram and bus stops; available traffic options, including taxis)
- Detailed description where to find TWSI and other elements for tactile guidance
- Contact information for on-site support (e.g. navigation to or phone number of the on-site accessibility station or customer service of the station operator)
- Precise directions for all transfer options at a station
- Timetables
- Information about construction sites or other disruptions
- Information about POIs nearby, including: their level of accessibility, contact information and navigation

Benefits:

- Possibility to add one's own audio descriptions - either for personal use or for sharing with other users
- Possibility to control directions with gestures or voice input
- No training is needed to use the app

Cost:

- Development of a concept for the app: 2.000 EUR
- Programming of the app, including Beta testing with BPS users: 12.000 EUR
- Development of a collection schema for data to be entered: 1500 EUR
- Collection of data per station: 200 EUR

Contact:

Dr. Susanne Buchner-Sabathy
+43 664 377 75 87, office@sabathy.at

IDEA NO. 3

GUIDE-Walk 2.0

Technical description:

It is a portable guidance system for visually impaired with the application of AI-powered object detection and motion control.

The device is wearable around the neck and records the surroundings with the help of a camera. These images are passed on to a self-trained Object Detection network, which analyses them for obstacles, potential hazards, and other relevant objects, such as pedestrians, trams, buses, or chairs. If one of these is on a collision course with the user, he gets notified via headphones with a voice output about the type, distance, and direction of the obstacle. Additional sensors such as a Time-of-Flight sensor and a movement and environment sensor collect data about the environment, the movement profile of the user, and similar, and use them in order to significantly increase the performance of the system and the accuracy of the AI.

Benefits:

- Hands-free assistive technology
- Audio warnings for obstacles
- High accuracy of AI and a fast reaction time

Cost:

The estimated cost of materials would come down to at least 70 EUR per part.

Contact:

Tamas Nemes
nemestomi2@gmail.com